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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,775	10/03/2000	Takeshi Hashimoto	Q61062	6870

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EXAMINER

WARE, CICELY Q

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/677,775

Applicant(s)

HASHIMOTO ET AL.

Examiner

Cicely Ware

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aramaki (US Patent 6,370,134) in view of Higuchi et al. (US Patent 6,167,037).

(1) With regard to claim 1, Aramaki Higuchi discloses in (Fig. 3) a first correlating unit (103) which calculates first correlation values from a spread modulation signal and a short code which is common to base stations (101); a long code phase candidate outputting section (12) which outputs selected long code phase candidates corresponding to ones selected from said first correlation values, based on said spread modulation signal, and determined long codes, said selected long code phase candidates being other than long code phase candidates for known ones of said base stations (col. 1, lines 18-20, 35-40, 43-44, 46-50, col. 6-14, col. 3, lines 54-57, col. 4, lines 9-11, 41-51, col. 5, lines 13-15).

However Aramaki does not disclose a CDMA baseband receiver comprising: a long code determining section which generates said determined long codes for unknown ones of said base stations from said spread modulation signal, said short

code, and long codes generated based on said selected long code phase candidates, each long code being peculiar to one base station.

However Higuchi et al. discloses a long code determining section which generates said determined long codes for unknown ones of said base stations from said spread modulation signal, said short code, and long codes generated based on said selected long code phase candidates, each long code being peculiar to one base station (Fig. 7, col. 18, lines 26-44).

Therefore it would have been obvious to one of ordinary skill in the art to modify Aramaki to incorporate a long code determining section which generates said determined long codes for unknown ones of said base stations from said spread modulation signal, said short code, and long codes generated based on said selected long code phase candidates, each long code being peculiar to one base station in order to achieve fast and highly accurate acquisition of the spreading code synchronization of a forward control channel and to not increase the consumed power by the entire spreading code synchronization detector (Higuchi et al., col. 22, lines 55-61).

(2) With regard to claim 2, claim 2 inherits all the limitations of claim 1. Aramaki further discloses in (Fig. 3 (108, 111, 112) wherein said correlation values corresponding to said selected long code phase candidates are larger than a first predetermined threshold value (118) (col. 2, lines 18-27).

(3) With regard to claim 3, claim 3 inherits all the limitations of claim 1. Furthermore, Higuchi et al. discloses in (Fig. 7) wherein said long code phase candidate outputting section further outputs correlation peak phases corresponding to selected

ones for a first predetermined number of second correlation values for said known base stations (col. 18, lines 19-33).

(4) With regard to claim 4, claim inherits all the limitations of claim 1.

Furthermore, Higuchi et al. discloses wherein said long code phase candidate outputting section includes a maximum correlation peak phase detecting unit which detects and holding as long code phase candidates, peak phases corresponding to said first correlation values for a second predetermined number from a maximum one of said first correlation values and higher than a second predetermined threshold value (Figs. 7, 9, col. 11, lines 31-48); spreading code generating units which generate spreading codes from said short code and said determined long codes, respectively (Fig. 7); delay profile generating units which generate delay profiles for said known base stations based on said generated spreading codes, respectively (Fig. 12); and a phase detecting unit which removes long code phase candidates corresponding to peak phases for said generated delay profiles from said held long code phase candidates, and outputs the remaining long code phase candidates as said selected long code phase candidates to said long code determining section (Figs. 7, 17, col. 19, lines 10-33).

(5) With regard to claim 5, claim 5 inherits all the limitations of claims 1 and 4.

Higuchi et al. further discloses a peak phase storage memory (col. 18, line 67, col. 19, line 1); a phase detecting unit which detects ones higher than a third predetermined threshold value from among third correlation values calculated from said generated delay profiles and stores peak phases corresponding to said detected third correlation value in said peak phase store memory (Fig. 12); a maximum correlation peak phase

detecting unit which compares a second predetermined threshold value and each of said first correlation values, detects peak phases corresponding to ones for a second predetermined number from a maximum one of said first correlation values larger than said second predetermined threshold value, compares each of said detected peak phase and said stored peak phases in said peak phases storage memory to remove said stored peak phases from said detected peak phases, and outputs remaining peak phases as said selected long code phase candidates to said long code determining section (col. 7,8,12).

(6) With regard to claim 6, claim 6 inherits all the limitations of claim 5. Higuchi et al. further discloses in (Fig. 11 (S4500)) wherein said long code phase candidate outputting section further includes: a path detecting unit which outputs said stored peak phases for said known base station.

(7) With regard to claim 7, claim 7 inherits all the limitations of claims 1 and 5. Higuchi et al. further discloses in (Fig. 17) a correlation value storage memory which stores said first correlation values; a mask setting and storing section which stores peak phases corresponding to said detected third correlation values and sets ones corresponding to stored peak phases of said first correlation values stored in said correlation value storage memory to lower values than a second predetermined threshold value (Figs. 1,2,5, col. 10, lines 17-26).

(8) With regard to claim 8, claim 8 inherits all the limitations of claims 6 and 7.

(9) With regard to claim 9, claim 9 inherits all the limitation of claim 1.

(10) With regard to claim 10, claim 10 inherits all the limitation of claims 9 and 2.

- (11) With regard to claim 11, claim 11 inherits all the limitation of claims 9 and 3.
- (12) With regard to claim 12, claim 12 inherits all the limitation of claims 9 and 4.
- (13) With regard to claim 13, claim 13 inherits all the limitation of claims 9 and 5.
- (14) With regard to claim 14, claim 14 inherits all the limitation of claim 13 and 6.
- (15) With regard to claim 15, claim 15 inherits all the limitation of claims 9 and 7.
- (16) With regard to claim 16, claim 16 inherits all the limitation of claims 15 and 8.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 703-305-8326. The examiner can normally be reached on Monday – Friday, 8-5.

Application/Control Number: 09/677,775
Art Unit: 2634

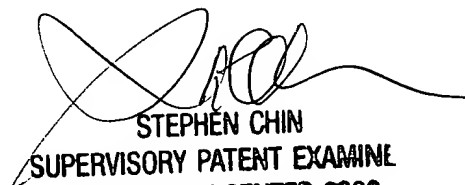
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
July 21, 2004



STEPHEN CHIN
SUPERVISORY PATENT EXAMINE
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